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EXAMINER
IRSHADULLAH, M

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/348,515	MURAKAMI ET AL.
	Examiner	Art Unit
	M. Irshadullah	3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 December 2002_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-50_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-35_ is/are rejected.

7)☒ Claim(s) _36-50_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _20_ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 19, 2002 has been entered.

2. This communication is in response to amendments filed December 19, 2002.

Summary Of Instant Office Action

3. Applicant's arguments concerning claims 1-35 rejections, para 6, Paper No. 16, Office Action mailed June 19, 2002 have been considered which entailed into the Office Action set out below.

4. Amendments to claims 1, 2, 9, 19 and 20 and also the new claims 36-50 (not 36-49 as mentioned in December 19, 2002 submission) have been entered.

Claim Objections

5. Claim 41 is objected to because of the following informalities:

Claim 41 appears to be duplicated, probable typographic error needs be corrected, and the

newly added claims be numbered as 36-50.

Appropriate correction is appreciably required.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagami et al

(US Patent 5,812,070) in view of Klein et al (US Patent 5,726,885).

Tagami et al show:

Claim 1.   A method for determining an order of allocating electric vehicles for use

depending on different charge levels of the vehicles (Title, col 4, lines 14-16, col 6, lines 6-11),

comprising the steps of:

b) selecting a group of vehicles based on vehicle location information, each vehicle

having charge levels which are adequate for covering said expected distance of an intended trip

(Col 3, lines 13-21, 23-26 col 5, lines 12-16 read with lines 63-67 continue col 6, lines 1-2, col 8,

lines 26-32. Applicant will appreciate that reference's "position monitoring" function clearly

points to the reference system's capability for vehicles' selection based on their position

(location), where possible locations (positions) are shown in Fig. 1 (MP, col. 4, line 11); H or M (Fig. 3 (G1), col. 4, lines 44-48; S in G (Fig. 3 (G2), col. 4, lines 57-60; Fig. 5 (43, col. 5, lines 25-27 read with col. 7, lines 11-13 and Fig. 5 (41), col. 7, lines 13-18). Applicant will also appreciably realize that the reference recites " plurality of motor vehicles (Abstract, lines 1-2) " and shows selection of one vehicle, yet the same selection function would be used for selecting a group of vehicles from the plurality of vehicles. Also, applicant will appreciate that the reference recites selection based on " average distance traveled in the past ", the system would be effectively used for vehicle selection covering the desired/expected journey/intended trip]; and

       c) allocating a vehicle having a highest level of charge in the selected group (Col 6, lines 11-15);

Tagami et al do not explicitly show the following feature:

       a) having a user enter an expected distance of an intended trip.

However, Klein et al teach the same (Col 1, lines 6-9,15-17, col 3, lines 1-2, 5-6, col 2, lines 61-62, col 4, lines 21-31 recited with lines 35-37).

It would have been obvious to one of ordinary skill in relevant art at the time of applicant's invention to incorporate Klein et al's feature into Tagami et al's invention, because it would save the user/renter from being stranded in-between and facing an untoward situation.

Claim 2. A method for allocating one or more vehicles from a fleet of electric

powered vehicles to one or more users, wherein each vehicle has a state of charge (SOC) at any

given time, the method comprising:

b) selecting a group of one or more vehicles from the fleet (based on vehicle location

information- See discussion in Applicant's claim 1b) above), where each selected vehicle has an

SOC sufficient to meet the travel request from the user (Tagami et al: Col 3, lines 13-21, col 5,

lines 63-67 continue col 6, lines 1-2, col 8, lines 26-32. Applicant will appreciably realize that

the reference recites " plurality of motor vehicles (Abstract, lines 1-2) " and shows selection of

one vehicle, yet the same selection function would be used for selecting a group of vehicles from

the plurality of vehicles]; and

c) allocating the vehicle having the highest SOC in the group for the user (Col 6, lines 11-

15);

Tagami et al do not explicitly show the undernoted feature:

a) receiving a travel request from a user.

However, Tagami et al teach communication between the control center (MC) and user vehicle

(C) (Fig. 1 (M, H and C to A at MC) using the on-board computer 21 of C (Col 4, lines 17-19

read with lines 30-33).

Official notice is taken that it would have been obvious to one of ordinary skill in the relevant art

at the time of instant invention to advantageously employ/use the reference's communication

system by the user to send a request/travel request and MC receiving the same.

Claims 3 and 10.   A method as recited in claim 2/9, wherein said step of receiving a travel request comprises receiving information associated with an expected distance of travel and wherein said step of selecting a group comprises selecting one or more vehicles, each with a sufficient S OC to travel the expected distance (See discussion of Applicant's claim 1a and 1b).

Claims 4 and 11.   A method as recited in claim 2/9, wherein said step of receiving a travel request comprises receiving information associated with an expected time period of use and wherein said step of selecting a group comprises selecting one or more vehicles, each with a sufficient SOC to travel for the expected time period (See discussion of applicant's claim 1a above and Klein et al's col 1, lines 15-15, col 6, lines 8-12).

Claims 5 and 12.   A method as recited in claim 2/9, wherein said step of receiving a travel request comprises receiving information associated with an expected destination port and an expected distance of travel beyond a direct route to the destination port and wherein said step of selecting a group comprises selecting one or more vehicles, each with a sufficient S O C to travel the combined distance of the direct route to the destination port and expected distance of travel beyond the direct route (See discussion of Applicant's claim 2a above and Klein et al's col 6, lines 1-12 and Fig. 2 (H1 and H2), col 7, lines 1-10 and motivation in Applicant's Claim 1a) above. Applicant will appreciate that " information received " would include requested information including expected destination, ... beyond the direct route).

Claim 6. A method as recited in claim 2, further comprising the step of identifying the allocated vehicle to the user (Klein et al: Col 3, lines 23-24, col 4, line 52 and col 5, line 41 and motivation in Applicant's claim 1a) above).

Claim 7. A method as recited in claim 6, wherein said step of identifying the allocated vehicle to the user comprises displaying identification information to the user on a display device (Klein et al: Col 6, lines 1-8, col 4, lines 26-27, col 7, lines 6-7 and motivation in Applicant's claim 1a) above).

Claim 8. A method as recited in claim 2, wherein said step of receiving a travel request comprises:

displaying a map to the user (Klein et al: Col 6, lines 7-8 and col 7, lines 17-22); and

receiving user-selected map locations corresponding to locations on the displayed map through a user-interface associated with the displayed map (Klein et al: Col 6, lines 1-3, col 7, lines 17-21 and claim 7 and motivation in Applicant's claim 1a) above).

Claim 9. A method for allocating one or more vehicles from a fleet of electric powered vehicles to one or more users, wherein each vehicle has a state of charge (S OC) at any given time, the method comprising:

a) providing a user-interface terminal at one or more ports (Tagami et al: Fig. (48), col 5,

line 28 and col 4, lines 17-19. Applicant will appreciate that reference shows one parking port

(MP), however, it is a common/customary practice in the vehicle renting business to have

multitude of ports for the convenience of customers/renters under central control. Reference

would, therefore, have one or more ports like MP);

In the following element, Tagami et al show

b) communicating the travel request information to a computer (Tagami et al: Fig. 1 (C

in H or M to MC via A), yet

Tagami et al do not explicitly show the undernoted feature:

receiving a travel request from a user at a user interface.

However, Tagami et al teach communication between the control center (MC) and user vehicle

(C) (Fig. 1 (M, H and C to A at MC)) using the on-board computer 21 of C (Col 4, lines 17-19

read with lines 30-33] or Fig. 4 (48), if user would be using facility having computer 60).

Official notice is taken that it would have been obvious to one of ordinary skill in the relevant art

at the time of instant invention to advantageously employ/use the reference's communication

system by the user to send a request/travel request and MC receiving the same at Fig. 4 (48 c),

col 5, line 61).

c) operating the computer to select a group of one or more vehicles from the fleet (based

on vehicle location information- See the discussion in Applicant's claim 1b) above), where each

selected vehicle has an S OC sufficient to meet the travel request information from the user

(Tagami et al: Col 3, lines 13-21, col 5, lines 63-67 continue col 6, lines 1-2, col 8, lines 26-32.

Applicant will appreciably realize that the reference recites " plurality of motor vehicles

(Abstract, lines 1-2) " and shows selection of one vehicle, yet the same selection function would

be used for selecting a group of vehicles from the plurality of vehicles);

and

d) operating the computer to allocate the vehicle in the group having the highest SOC for

the user (Tagami et al: Col 6, lines 11-15).

Claim 13.   A method as recited in claim 9, further comprising the step of displaying

vehicle identification information on a display device at me port facility from which travel

information is received, identifying the vehicle allocated to the user (See discussion of

applicant's claims 6 and 7 above).

Claim 14.   A method as recited in claim 9, wherein:

a) said step of providing a user-interface terminal at one or more ports comprises

providing a user-interface at a plurality of ports disposed at geographically remote locations

relative teach other (Tagami et al: Fig. (48), col 5, line 28 and col 4, lines 17-19. Applicant will

appreciate that reference shows one parking port (MP), however, it is a common/customary

practice in the vehicle renting business to have multitude of ports for the convenience of

customers/renters under central control. Reference would, therefore, have one or more ports like

MP and Klein et al: Fig. 2, col 6, lines 46-53, col 7, lines 1-10, col 8, lines 1-8) and motivation in

Applicant's claim 1b) above);

b) each port has a vehicle search group (VSG)in which more than one and less than all of

the vehicle from the fleet may be located at any given time (Tagami et al: Abstract, lines 1-3, col

2, lines 24-33 (specifically lines 25-26 and 30-31). Applicant will appreciably realize that in

computer art same function/program etc is user for various purposes, and reference's

dividing/grouping means would be advantageously used to grouping/dividing the plurality of

vehicles into groups according to some defined criteria including travel information received);

and

c) said step of operating the computer to select a group of one or more vehicles from the

fleet comprises selecting a group from the VSG of the port from which travel information is

received (See discussion of the 14b and col 2, lines 60-61).

Claim 15.   A method as recited in claim 14, wherein the V S G of any given port

includes vehicles parked at a parking facility at the port (Tagami et al: Col 5, lines 20-21 and

Figs. 4 and 5).

Claim 16.   A method as recited in claim 15, wherein the V S G of any given port

further includes vehicles due to arrive at the port within a preset time period (Tagami et al: Col 5,

line 22, col 6, lines 50-53. Applicant will appreciate that in vehicle renting business return of vehicles at a fixed/preset time is a common practice).

Claim 17.   A method as recited in claim 16, wherein the V S G of any given port further includes vehicles due to become sufficiently charged at the port within a preset time period (Tagami et al: Col 5, lines 25-27).

Claim 18.   A method as recited in claim 15, wherein the V S G of any given port further includes vehicles due to become sufficiently charged at the port within a preset time period (Tagami et al: Col 5, lines 25-27, col 6, line 58, col 7, lines 9-13. Applicant will appreciate that computer 60's determining function would be used to find as to which vehicle(s) would be due to become sufficiently charged).

Claim 19.   A method for allocating one or more vehicles from a fleet of electric powered vehicles to one or more users, wherein each vehicle has a state of charge (S OC) at any given time and the rate at which any given vehicle within can be charged is dependent upon the SOC of the vehicle wherein a plot of the S O C of the vehicle being charged versus time defines a generally linear region at lower S O C levels and a nonlinear region at higher S OC levels, the method comprising:

b) selecting a group of one or more vehicles from the fleet (based on vehicle location information- See the discussion in Applicant's claim 1b) above), where each selected vehicle has a SOC sufficient to meet the travel request from the user (Tagami et al: Col 3, lines 13-21, col 5, lines 63-67 continue col 6, lines 1-2, col 8, lines 26-32. Applicant will appreciably realize that the reference recites " plurality of motor vehicles (Abstract, lines 1-2) " and shows selection of one vehicle, yet the same selection function would be used for selecting a group of vehicles from the plurality of vehicles); and

c) allocating any vehicle within the group having an S OC within the nonlinear region and, if no vehicles within the group have an SOC within the nonlinear region, then allocating the vehicle within the group having the highest SOC for the user (Tagami et al: Col 6, lines 11-15); Tagami et al do not explicitly show the undernoted feature:

a) receiving a travel request from a user.

However, Tagami et al teach communication between the control center (MC) and user vehicle (C) (Fig. 1 (M, H and C to A at MC) using the on-board computer 21 of C (Col 4, lines 17-19 read with lines 30-33).

Official notice is taken that it would have been obvious to one of ordinary skill in the relevant art at the time of instant invention to advantageously employ/use the reference's communication system by the user to send a request/travel request and MC receiving the same.

Claim 2 0.   A vehicle allocation system for allocating one or more vehicles from a

fleet of electric powered vehicles to one or more users, wherein each vehicle has a state of charge

(S OC) at any given time, the vehicle allocation system comprising:

a) one or more ports at geographically remote locations relative to each other, each port

having a user-interface terminal for receiving a travel request from a user (Tagami et al: Fig. (48

), col 5, line 28 and col 4, lines 17-19. Applicant will appreciate that reference shows one parking

port (MP), however, it is a common/customary practice in the vehicle renting business to have

multitude of ports for the convenience of customers/renters under central control. Reference

would, therefore, have one or more ports like MP and Klein et al: Fig. 2, col 6, lines 46-53, col 7,

lines 1-10, col 8, lines 1-8);

b) a computer system coupled in communication with at least one user-interface terminal

and programmed to respond to a travel request received from a user, for selecting a group of one

or more vehicles from the fleet (based on vehicle location information- See the discussion of

Applicant's claim 1b) above), where each selected vehicle has an SOC sufficient to meet the

travel request from the user, said computer system being further programmed to allocate the

vehicle having the highest S O C in the group for the user (Tagami et al: Col 3, lines 13-21, col 5,

lines 63-67 continue col 6, lines 1-2, col 8, lines 26-32. Applicant will appreciably realize that

the reference recites " plurality of motor vehicles (Abstract, lines 1-2) " and shows selection of

one vehicle, yet the same selection function would be used for selecting a group of vehicles from

the plurality of vehicles; and Col 6, lines 11-15).

Claim 21. A system as recited in claim 20, wherein said computer system comprises a central station computer system coupled in communication with a plurality of user-interface terminals at a plurality of said ports (Tagami et al: Fig. 1 (MC and MP), col 4, lines 8-11. Applicant will appreciate that reference shows one parking port (MP), however, having multiple ports at various locations is a common/customary practice in vehicle renting business).

Claim 22. A system as recited in claim 20, wherein said travel request comprises information associated with an expected distance of travel and wherein said group comprises one or more vehicles, each with a sufficient SOC to travel the expected distance (See the discussion of applicant's's claim 2b above).

Claim 23. A system as recited in claim 20, wherein said travel request comprises information associated with an expected time period of use and wherein said group comprises one or more vehicles, each with a sufficient S O C to travel for the expected time period (Discussion of applicant's claim 2b and col 5, lines 9-11).

Claim 24. A system as recited in claim 20, wherein said travel request comprises information associated with an expected destination port and an expected distance of travel beyond a direct route to the destination port and wherein said group comprises one or more vehicles, each with a sufficient S OC to travel the combined distance of the direct route to the

destination port and expected distance of travel beyond the direct route (Klein et al: Col 3, lines

1-10, 37, col 4, lines 35-37 and Tagami et al: col 5, lines 53-55 and 63-67 continue col 6, lines 1-

2 and motivation in Applicant's claim 1a) above).

Claim 25.   A system as recited in claim 20, wherein each port is provided with a

display device for displaying identification information, identifying an allocated vehicle to a user

(See the discussion of applicant's Claim 6 above).

Claim 26.   A system as recited in claim 20, wherein each of user-interface terminals

comprises a display device for displaying a map to the user and an user/display interface for

receiving user-selected map locations corresponding to locations on the displayed map from a

user (See the discussion of applicant's claim 8 above).

Claim 27.   A system as recited in claim 21, wherein:

a) each port has a vehicle search group (VSG)in which more than one and less than all of

the vehicles from the fleet may be located at any given time (See the discussion of applicants

claim 14a above); and

said computer is programmed to select a group of one or more vehicles by selecting a

group from the VSG of the port from which travel information is received (See the discussion of

applicant's claim 14 b).

Claim 28.   A system as recited in claim 27, wherein each port includes a vehicle

parking facility at which one or more vehicles may be parked at any given time and the VSG of a

given port includes vehicles parked at a parking facility at the port (See the discussion of

applicant's claim 15).

Claim 29.   A system as recited in claim 28, wherein each port includes at least one

vehicle charging facility and the V S G of a given port further includes vehicles due to become

sufficiently charged at the port within a preset time period (See the discussion of applicant's

claim 16).

Claim 3 0.   A system as recited in claim 28, wherein the VSG of a given port further

includes vehicle due to arrive at the port within a preset time period (See the discussion of

applicant's claim 17).

Claim 31.   A system as recited in claim 30, wherein each port includes at least one

vehicle charging facility and the VSG of a given port further includes vehicles due to become

sufficiently charged at the port within a preset time period (See the discussion of applicant's

claim 18).

Claim 3 2. A system as recited in claim 20, further comprising a plurality of vehicle subsystems associated on a one-to-one basis with the vehicles from the fleet, each vehicle subsystem including means for detecting the SOC of its associated vehicle and for transmitting information corresponding to the detected SOC to the computer system (Tagami et al: Col 4, lines 17-19 and Fig. 1 (C at H or M to MC via A))

Claim 33. A system as recited in claim 20, wherein the request includes user identification information and wherein said computer system is programmed to further base the vehicle selection on the user identification information (Tagami et al: Col 5, lines 40-58] in conjunction with col 2, lines 61-62, col 3, lines 1-10).

Claim 34. A system as recited in claim 33, wherein said computer system includes a storage of vehicle preference information associated with each user identification and is programmed to retrieve from storage vehicle preference information associated with user identification information received from a port terminal and to further base the vehicle selection on the vehicle preference information (Tagami et al: Col 5, lines 40-58 in conjunction with col 2, lines 61-62, col 3, lines 1-10).

Claim 35. A system as recited in claim 34, wherein the vehicle preference information comprises information from the group consisting of: number of vehicle

wheels,-number of vehicle doors, preferred minimal SOC or range of SO s, distance usually

traveled, and usual duration of vehicle use (Inherent, since the claimed features are notoriously

known and practiced in vehicle hiring/renting art).

Allowable Subject Matter

8.   Claims 36-50 (not 36-49 as objected above) are objected to as being dependent upon a

rejected base claims 1, 9, 19 and 20, but would be allowable if rewritten in independent form

including all of the limitations of the base claims and any intervening claims.

9.   The following is a statement of reasons for the indication of allowable subject matter: .

        Central computer (MC, col. 4, lines 8-10) having a program for: processing location

information of a due to arrive vehicle at a given port, processing its state of charge information;

providing an estimated time of arrival of the vehicle at said port; and including said arrived

vehicle into the search group if:

        1) the estimated arrival time of said vehicle is within a predefined time period;

        2) the arrived vehicle is at a charging facility located at the port and the vehicle having a

charging time to be expired (due to expire) within a predefined time period.

Response to Arguments

10.   Applicant's arguments filed December 19, 2002 have been fully considered and in view of the same instant Office Action has been set out as above.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Irshadullah whose telephone number is (703) 308-6683. The examiner can normally be reached on M-F from 11:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (703) 305-9643. The fax numbers for the organization is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-3900.

M. Irshadullah

February 14, 2003

TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600